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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/497,520	02/04/2000	Hyun-doo Shin	Q53233	7584

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EXAMINER	
GRANT II, JEROME	
ART UNIT	**PAPER NUMBER**
2626	

DATE MAILED: 10/03/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Supplemental **Office Action Summary**	Application No. 09/497,520	Applicant(s) SHIN ET AL.	
	Examiner Jerome Grant II	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-22,24-27 and 29-50 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1,2,19,22,38,39,44, 45 and 50 is/are rejected.

7)☒ Claim(s) 3-18,24-27,29-37,40-43 and 46-49 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

JEROME GRANT II
PRIMARY EXAMINER

Attachment(s)

1) ☒ ~~Notice of References Cited (PTO-892)~~
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Detailed Action

1. Claims 23 and 28 have been canceled by a pre-liminary amendment.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 19, 22, 38, 39, 44, 45 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Young.

With respect to claim 1, Young teaches a color image processing method comprising the steps of:

sorting image pixels according to a color distance (d), according to col. 9, lines 30-35, between image pixels P(n) and a central pixel C(r); grouping the sorted pixels into groups in which a difference intragroup color distance is minimum (see col. 9, lines 44-46) and a difference in intergroup color difference is maximum (see col. 9, lines 40-43); and performing filtering by replacing a central pixel C(r) value with a predetermined pixel value C(j) determined by pixel values of pixels in the groups, see col. 9, lines 46-57.

With respect to claim 2, Young teaches a circular window defined by (HSV) coordinates, see figures 6a and 6b.

With respect to claim 19, Young teaches a color image priocessing method comprising the steps of:

receiving a color image frame (18) and segmenting the same into a plurality of color images (RGB values; sorting image pixels according to a color distance (d), according to col. 9, lines 30-35, between image pixels P(n) and a central pixel C(r); grouping the sorted pixels into groups in which a difference intragroup color distance is minimum (see col. 9, lines 44-46) and a difference in intergroup color difference is maximum (see col. 9, lines 40-43); and performing filtering by

replacing a central pixel C(r) value with a predetermined pixel value C(j) determined by pixel values of pixels in the groups, see col. 9, lines 46-57.

With respect to claim 22, Young teaches a circular window defined by (HSV) coordinates, see figures 6a and 6b.

With respect to claim 38, Young teaches defining a circular window (see figures 6a and 6b) having a predetermined size with an input color; selecting pixels having a color vector C(j) similar to that of a central pixel C(r) within the window and defining the selected pixels as a group; and performing filtering of blurring (using the Shadow Theorem, explained at col. 11, lines 11-19.

With respect to claim 39, Young teaches a computer readable medium (25) having program codes executable by a computer to perform a color image processing method, comprising the steps of: receiving a color image frame (18) and segmenting the same into a plurality of color images (RGB values; sorting image pixels according to a color distance (d), according to col. 9, lines 30-35, between image pixels P(n) and a central pixel C(r); grouping the sorted pixels into groups in which a difference intragroup color distance is minimum (see col. 9, lines 44-46) and a difference in intergroup color difference is maximum (see col. 9, lines 40-43); and performing

filtering by replacing a central pixel C(r) value with a predetermined pixel value C(j) determined by pixel values of pixels in the groups, see col. 9, lines 46-57.

With respect to claim 44, Young teaches a color image frame, obtained from a frame grabber 18, and segmenting the images (rgb values).

With respect to claim 45, Young teaches a color image processing method, comprising: sorting means 14 and 15 as shown in figure 2, for setting a window of a predetermined size within an input color image and sorting image pixels in he window according to a color distance between the image pixels P(n) and a central pixel C(r); grouping means 15 for grouping the sorted pixels into groups in which a difference in an intragroup color distance is minimum and a difference in an intergroup color difference maximum; and filtering means via the ordered file (see col. 9, lines 46-57).

With respect to claim 50, Young teaches a segmenting means (frame grabber 18) for receiving a color image frame (see col. 5, lines 20-24) and segmenting the received data into a plurality of color images (see col. 5, lines 24-28).

Claims Objected Containing Allowable Matter

3. Claims 3-18, 24-27, 29-37, 40-43 and 46-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 305-4391. The examiner can normally be reached on Mon. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams, can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

J. Grant II JEROME GRANT II PRIMARY EXAMINER